



Welding Equipment for Plastics

Socket Fusion
Welding

Butt Welding

Electrofusion
Welding

Welding of
Plates and Foils



DYTRON EUROPE s.r.o.

www.dytron.eu



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Welding of Plates and Foils

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Welders for Socket Fusion Welding Ø 16 – 125 mm



Welders for socket fusion welding are used for joining of pipes and fittings of 16 – 125 mm in diameter made from thermoplastic materials (usually PP, PE, PB, or PVDF) intended primarily for internal distribution of water or for heating systems.

The welders can be delivered either individually in the SOLO version (packed in cardboard boxes) or together with adapters and accessories in the MINI or PROFI versions (packed in practical sheet metal cases). An advantage of the PROFI case is the possibility to place the welder and the adapters in it while they are still hot. Another advantage of this transport case is a special partition wall for the cable storage.

Electronic Hand Welders POLYS P-4 for Professionals

POLYS P-4 650 W, 850 W, 1200 W

Pages 6 - 8



The welders are intended for professionals as they are equipped with a precise electronic temperature control and (some of the types) with an original acoustic weld guide TraceWeld®. The main advantage of the welders is the possibility to operate continuously even under demanding conditions. The best-selling category, the welders with a rod heating element and with power demand of 650 W, allows the operation in very confined spaces and up to 3 welding adapters can be attached simultaneously to the welders. We can offer the knife version of 850 W with a possibility of attaching two adapters at once to those preferring a traditional shape of the welder. For welding of big diameters of up to 125 mm we offer the 1200 W plate welder.

Thermostatic Hand Welders POLYS P-1 for Handymen

POLYS P-1 500 W, 650 W, 850 W

Page 9



The welders equipped with the thermostatic temperature control are intended mainly for occasional operations, i.e. they serve as a complement to the P-4 line or as a tool for handymen. The heating elements are either of the rod or knife designs. An extra feature in this category of the hand socket welders is the rod angle shape of the welder P-1b that allows operations in confined spaces when working „around the corner“.

Accessories for Socket Welding

Accessories for POLYS P-1 and POLYS P-4

Pages 10 - 11



We offer a wide range of practical aids to make the work easier during the welding of plastic pipes.

Welding Machines MP, ST



MP 110

Page 12

A sturdy professional equipment is intended for socket fusion welding of pipes and fittings up to 110 mm in diameter. It enables making perfect welds and ensures a faultless alignment of the welded pipes. The machine is supplied with a complete set of accessories stored in a practical case. Special reduction inserts for STABI pipes can be ordered as an option. The equipment is manufactured in a compact and lighter workshop version, or in a field version with a weld protection shield against impurities which includes also a support for welded pipes to ensure a correct pipe alignment.



MP 75

Page 13

A light welding fixture is controlled by a lever whereas continuously adjustable clamping jaws permit firm fixation and reliable welding of pipes and fittings of diameters of 40 – 75 mm. The low weight of the machine which can be further decreased by removing a clamping jaw represents an advantage of this equipment and it enables an easy operation in case of „position welds“ in hardly accessible places, e.g. under a ceiling. The fixture can be used with any socket fusion hand welder.



ST 160

Page 13

A unique mechanical equipment allows both the socket fusion welding up to the diameter of 110 mm and the butt welding up to the diameter of 160 mm. The integrated universal clamp provides an exact fixation of any fittings during the socket fusion welding. Another advantage of this machine is a mobile stainless steel bench ensuring an easy manipulation with the equipment. The equipment is intended for welding of water and sewer pipes.

Contact Thermometer



DT metr 400

Page 13

A precision electronic thermometer with a touch sensor. It is recommended for checking the temperatures of the welding surfaces and the welding adapters.

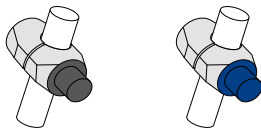
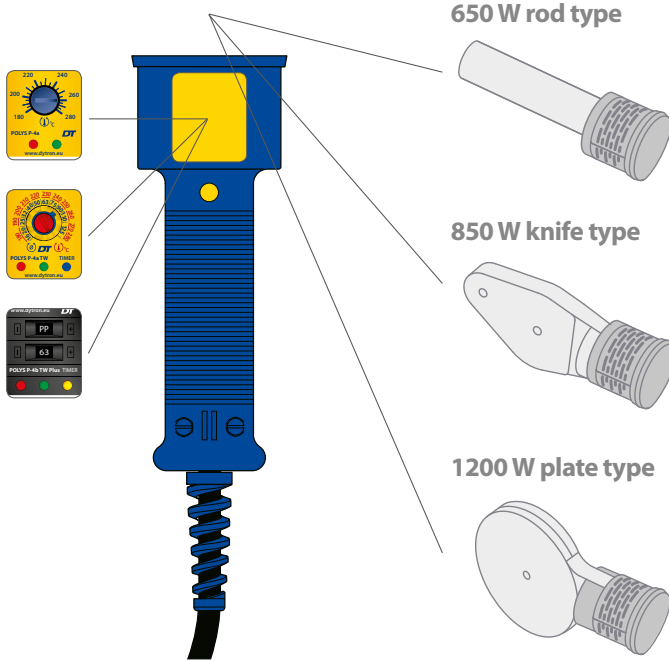
Electronic Hand Welders POLYS P-4 for Professionals

Range of Products

A building-block character of the assortment of the hand held electronic welders for professionals enables to offer a wide range of products with different features suitable for applications in various situations. The heating elements are designed with regard to the necessary heat power and also to a maximum accessibility when working in confined spaces.

Combination options:

- 3 different types of temperature control
- with 3 types of heating elements



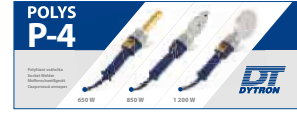
MINI and PROFI sets are supplied as follows:

with black adapters (with a standard anti-adhesive coating)

with blue adapters with a double-layer coating (having a high mechanical and heat resistance and approximately 3-time longer life time compared with the black adapters)

Packing: the welders are supplied in 3 versions

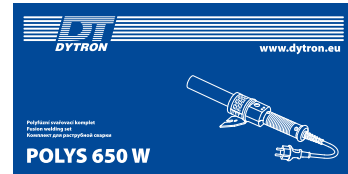
SOLO - welder alone in a cardboard box



MINI - welder with adapters 20 - 32mm and basic accessories packed in a metal sheet case



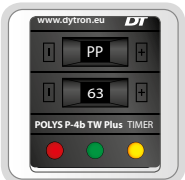
PROFI - welder with an extended range of accessories packed in a big metal sheet case



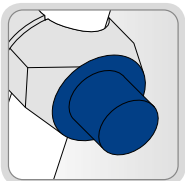
Advantages of POLYS P-4 Welders



Electronic temperature control provides an accurate setting and temperature stability



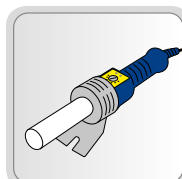
P-4b TraceWeld Plus control panel allows an easy set-up of the welder



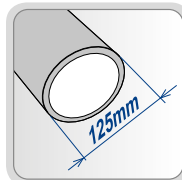
Blue DT coating provides a triple life cycle compared with the standard black coating



Special power supply cord resists contact temperatures of up to 280°C



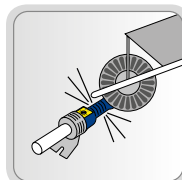
Up to **3 adapters** can be installed **simultaneously** on the best-selling rod welder **P-4a 650W**



1200W plate welder can weld pipe diameters up to **125 mm**



TraceWeld® audio signalling simplifies monitoring of all phases of the welding cycle

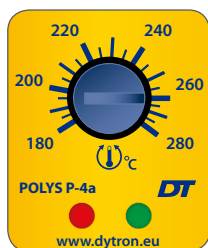


The welders are intended for a **continuous operation**, they feature an excellent mechanical resistance and a **long life cycle**

Electronic Hand Welders POLYS P-4 for Professionals

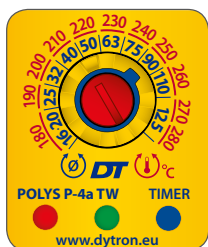


Types of Control of the Hand Welders POLYS P-4



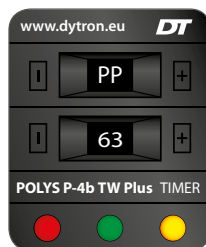
POLYS P-4a

- » continuously adjustable control
- » temperature range of 180 – 280°C
- » temperature setting by means of a rotary control knob



POLYS P-4a TraceWeld®(TW)

- » continuously adjustable control
- » temperature range of 180 - 280°C
- » temperature and diameter are set by means of a rotary knob
- » audio signalling



POLYS P-4b TraceWeld®Plus (TWPlus)

- » control adjustable in steps
- » temperature range of 180 - 280°C
- » setting of welding temperature by entering the pipe diameter and the type of material
- » audio signalling

Audio Signalling TraceWeld®

During the development our company strives not only to equip our welding machines with a precise and reliable temperature control but we look for new ways how to improve the weld quality and how to increase the comfort of the operator when working. Therefore, we have developed the original TraceWeld® system that significantly improves and simplifies the process of socket fusion welding as the operator is acoustically signalled the passage of all basic technological times of the individual phases of the welding process. For a correct functioning of the system it is only necessary to set the pipe diameter and the welding temperature, while at the model P-4b TraceWeld Plus the pipe diameter and the material of the pipes to be welded. After placing the fitting and the pipe in the adapter just press a push button "Timer" and make the weld according to the acoustic signals without a necessity to monitor the time.

MELTING TIME

A short audio signal indicates the beginning of the welding process.

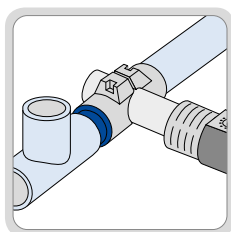
PIPE FIXING TIME

A quickly interrupted audio signal determines the time for connecting the pre-heated pipe and the fitting. This time must not be exceeded.

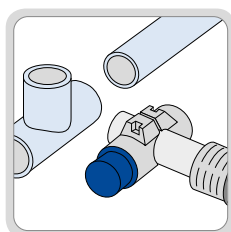
COOLING TIME

A long audio signal indicates the end of the welding process. In this moment the weld fixed during the welding may be released.

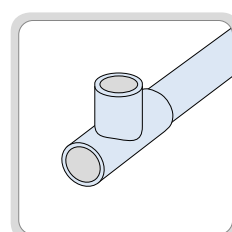
1st sequential step



2nd sequential step



3rd sequential step



Electronic Hand Welders POLYS P-4 for Professionals

Hand Welders POLYS P-4

650 W rod

ø 16 - 63 mm



Temperature control		P-4a	P-4a TW	P-4b TW Plus
Packing	Adapters	Supply No.	Supply No.	Supply No.
SOLO	-	01118	03981	04826
MINI 20-32	blue	03974	04531	04955
	black	03423	04222	04828
MINI 20-40	blue	39772	51404	51406
	black	39771	51403	51405
PROFI	blue	02367	04105	04967
	black	00912	04349	04831

- » **SOLO** welder • cardboard box • 4 mm Allen key
- » **MINI** ø 20 - 32 welder • jaw adapters ø 20, 25, 32 mm • sheet metal case MINI • foot stand • DYNO shears up to ø 42 mm • 4 mm Allen key
- » **MINI** ø 20 - 40 welder • jaw adapters ø 20, 25, 32, 40 mm • sheet metal case MINI • foot stand • DYNO shears up to ø 42 mm • 4 mm Allen key
- » **PROFI** ø 16 - 63 welder • jaw adapters ø 16, 20, 25, 32, 40, 50, 63 mm, 100 mm flat • sheet metal case PROFI • foot stand • workbench clamp • DYNO shears up to ø 42 mm • 4 mm Allen key

• Included in the set •

850 W knife

ø 16 - 75 mm



Temperature control		P-4a	P-4a TW	P-4b TW Plus
Packing	Adapters	Supply No.	Supply No.	Supply No.
SOLO	-	02082	04833	04834
MINI	blue	03975	04970	04972
	black	03424	04729	04838
PROFI	blue	02369	03982	04986
	black	02080	04368	04841

- » **SOLO** welder • cardboard box • workbench stand • 6 mm Allen key
- » **MINI** ø 20 - 32 welder • pair adapters ø 20, 25, 32 mm • sheet metal case MINI • foot stand • DYNO shears up to ø 42 mm • 6 mm Allen key
- » **PROFI** ø 16 - 63 welder • pair adapters ø 16, 20, 25, 32, 40, 50, 63 mm • sheet metal case PROFI • foot stand • workbench clamp • DYNO shears up to ø 42 mm • 6 mm Allen key

• Included in the set •

1200 W plate

ø 40 - 125 mm



Temperature control		P-4a	P-4a TW	P-4b TW Plus
Packing	Adapters	Supply No.	Supply No.	Supply No.
SOLO	-	01117	04373	04844
PROFI ø 40 - 90	blue	02366	04988	04990
	black	00911	04369	04846
PROFI ø 50 - 110	blue	36631	36630	36640
	black	36626	36627	36638
PROFI ø 75 - 125	blue	36633	36632	36641
	black	36628	36629	36639

- » **SOLO** welder • cardboard box • workbench stand • 6 mm Allen key
- » **PROFI** ø 40 - 90 welder • pair adapters ø 40, 50, 63, 75, 90 mm • sheet metal case PROFI • foot stand • workbench clamp • 6 mm Allen key
- » **PROFI** ø 50 - 110 welder • pair adapters ø 50, 63, 75, 90, 110 mm • sheet metal case PROFI • foot stand • workbench clamp • 6 mm Allen key
- » **PROFI** ø 75 - 125 welder • pair adapters ø 75, 90, 110, 125 mm • sheet metal case PROFI • foot stand • workbench clamp • 6 mm Allen key

• Included in the set •

Thermostatic Hand Welders POLYS P-1 for Handymen

Hand Welders POLYS P-1

500 W angle rod

ø 16 - 40 mm



The POLYS P-1 sets are supplied with black adapters only.

Temperature control		P-1 b
Packing	Adapters	Supply No.
SOLO	-	01115
MINI	black	39615

- » **SOLO** welder • cardboard box without printing • 4 mm Allen key
 - » **MINI** ø 20 - 40 welder • jaw adapters ø 20, 25, 32, 40 mm • sheet metal case MINI • DYNO shears up to ø 42 mm • workbench clamp • 4 mm Allen key
- Included in the set •

650 W rod

ø 16 - 63 mm



Temperature control		P-1 a
Packing	Adapters	Supply No.
SOLO	-	01902
MINI	black	03421
MINI PLUS	black	39821

- » **SOLO** welder • cardboard box without printing • 4 mm Allen key
 - » **MINI** ø 20 - 32 welder • jaw adapters ø 20, 25, 32 mm • sheet metal case MINI • workbench clamp • 4 mm Allen key
 - » **MINI PLUS** ø 20 - 40 welder • jaw adapters ø 20, 25, 32, 40 mm • sheet metal case MINI • DYNO shears up to ø 42 mm • workbench clamp • 4 mm Allen key
- Included in the set •

850 W knife

ø 16 - 75 mm



Temperature control		P-1 a
Packing	Adapters	Supply No.
SOLO	-	02195
MINI	black	03422
MINI PLUS	black	39822

- » **SOLO** welder • cardboard box without printing • workbench stand • 6 mm Allen key
 - » **MINI** ø 20 - 32 welder • pair adapters ø 20, 25, 32 mm • sheet metal case MINI • workbench clamp • 6 mm Allen key
 - » **MINI PLUS** ø 20 - 40 welder • pair adapters ø 20, 25, 32, 40 mm • sheet metal case MINI • DYNO shears up to ø 42 mm • workbench stand • workbench clamp • 6 mm Allen key
- Included in the set •

Packing of the welders POLYS P-4 and P-1

(illustration photo)



SOLO
Cardboard box
(without printing at P-1)



MINI
Sheet metal case



PROFI
Sheet metal case

Handy Aids for Welders P-4 and P-1

Optional Accessories for Hand Welders POLYS P-1 and POLYS P-4



FOOT STAND

- » provides a stable position of the welder (by kneeling on the floor)
- » permits an easy welding by one person

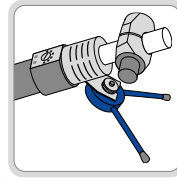


FOR WELDERS	SUPPLY NO.
650 W	03157
850 W, 1200 W	04938



WORKBENCH STAND

- » improves the stability of the welder on an uneven surface

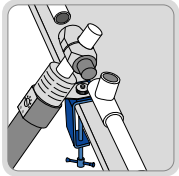


USED FOR	SUPPLY NO.
All types of welders	01449



WORKBENCH CLAMP

- » enables a clamping of the welder to the workbench board

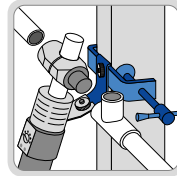


USED FOR	SUPPLY NO.
All types of welders	01450



UNIVERSAL CLAMP

- » allows an easy clamping of the welder at different places of the building site (window frames, door frames, beams etc.)



USED FOR	SUPPLY NO.
All types of welders	01451



PIPE SHEARS

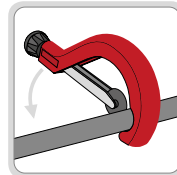
- » for cutting of pipes of smaller diameters

TYPE	SUPPLY NO.
DYNO up to \varnothing 42 mm	02427
Shears up to \varnothing 42 mm	51533
Shears up to \varnothing 63 mm	51529



PIPE CUTTERS

- » for cutting of pipes of larger diameters

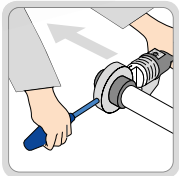


DIAMETERS TO CUT	SUPPLY NO.
\varnothing 50 - 125mm	53981
\varnothing 102 - 168 mm	51556
Spare cutting wheel 80P	51562



AUXILIARY HANDLE

- » simplifies welding of larger diameters
- » reduces substantially the effort required for handling of the welder



FOR WELDERS	SUPPLY NO.
650 W	36146
1200 W	36147



ALLEN KEYS

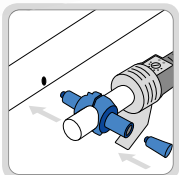
- » for fixation of adapters to the heating elements of welders

WELDER	DIMENSION	SUPPLY NO.
650 W	4 mm	36137
850 W a 1200 W	6 mm	36138



REPAIR ADAPTER

- » permits an easy repair of a pipe punctured accidentally
- » without a necessity to replace the damaged pipe inside the wall

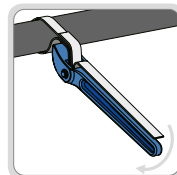


VERSION 650 W	SUPPLY NO.
Repair adapter	36441
Repair seals (set of 5 pcs)	36217
Repair adapter is available for rod welders only	



BAND WRENCH

- » for an easy tightening/loosening of threaded parts of pipe systems



SUPPLY NO.
01459

Optional Accessories for Hand Welders POLYS P-1 and POLYS P-4

JAW ADAPTERS FOR 500 W AND 650 W WELDERS

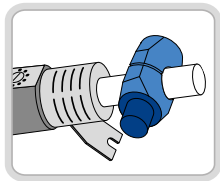
» Adapters of B type are available upon request for welding calibrated pipes (PVDF and PB).

» The blue DT coating provides a triple life time compared with standard types of adapters.



DIAMETER	BLACK COATING	DT COATING
ø 16 mm	01387	02344
ø 20 mm	01388	02351
ø 25 mm	01389	02345
ø 32 mm	01390	02346
ø 40 mm	01391	02347
ø 50 mm	01392	02348
ø 63 mm	01393	02349

Blue DT coating triplicates the life cycle

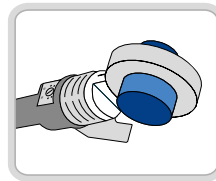


PAIR ADAPTERS FOR 850 W AND 1200 W WELDERS

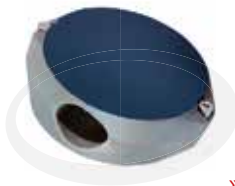


DIAMETER	BLACK COATING	DT COATING
ø 16 mm	01414	02327
ø 20 mm	01415	02328
ø 25 mm	01416	02329
ø 32 mm	01417	02330
ø 40 mm	01418	02331
ø 50 mm	01419	02332
ø 63 mm	01420	02333
ø 75 mm	01421	02334
ø 90 mm	01422	02339
ø 110 mm	01423	02340
ø 125 mm	21662	21663

Blue DT coating triplicates the life cycle



FLAT ADAPTER FOR 650 W WELDERS

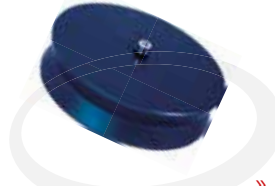


DIAMETER	BLACK COATING	DT COATING
ø100 mm (flat)	01394	02350

Blue DT coating triplicates the life cycle

» the adapter can be used with 650 W welders only

WELDING PLATES FOR 1200 W WELDERS



DIAMETER	BLACK COATING	DT COATING
ø 130 mm	01434	03972
ø 170 mm	01445	03973

Blue DT coating triplicates the life cycle

» the adapters can be used with 1200 W welders only

PAIR ADAPTERS FOR WELD IN SADDLE



VERSION	SUPPLY NO.
Saddle adapter ø 63/32 mm	37841
Saddle adapter ø 75/32 mm	38012
Saddle adapter ø 90/32 mm	38013
Saddle adapter ø 110/40 mm	37840
Drill for saddle adapters ø 32 mm	37842
Drill for saddle adapters ø 40 mm	40349

» the adapters can be used with knife or plate welders of 850 W or 1200 W only

PIPE CALIBRATION TOOLS



DIAMETER	SUPPLY NO.
ø 16 mm	04869
ø 20 mm	04870
ø 25 mm	04871
ø 32 mm	04872
ø 40 mm	04873
ø 50 mm	04874
ø 63 mm	04875
ø 75 mm	04876
ø 90 mm	04877
ø 110 mm	04878

» for welding of pipes made from materials requiring calibration (PVDF, PB)

» adapters of type B are necessary for welding of calibrated pipes

SHEET METAL CASES

» quality metal execution



PROFI

VERSION	SUPPLY NO.
PROFI	
650 W	01410
850 W	01411
1200 W / 40 – 90	01409
1200 W / 50 – 110	36664
1200 W / 75 – 125	36665



MINI

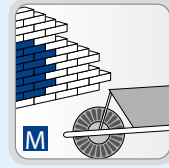
VERSION	SUPPLY NO.
MINI	
500 W	39619
650 W	03433
850 W	03434

Mobile Equipment for Socket Fusion Welding

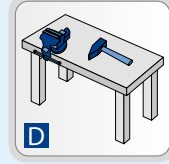
MP 110

Mobile Welding Unit for Pipes up to \varnothing 110 mm

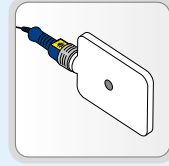
Advantages of MP 110 Series Machines



Mobile equipment for field and construction work



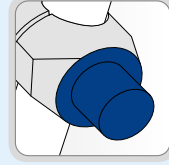
Workshop equipment for welding on a workbench



Equipment price includes electronic welder POLYS P-4



Universal clamp for any type of fitting



Blue DT coating provides a triple life cycle



- » The set consists of:
- » welder POLYS P-4a 1250W
- » clamping device
- » stand for the welder
- » sheet metal case with accessories

FOR FIELD



MP 110 UM
universal – mobile
longer clamping frame
with pipe support and
mud shield

FOR WORKSHOP



MP 110 UD
universal – workshop

MP 110 UD EKO
universal – workshop
with reduced accessories

TYPE	VERSION	DIAMETERS (mm)	WEIGHT (kg)	WELDER	SUPPLY NO.
MP 110 UM	U – universal M – mobile	40 – 110	62,0	POLYS P-4 1250 W	03969
MP 110 UD	U – universal D – workshop	40 – 110	58,0	POLYS P-4 1250 W	01652
MP 110 UD EKO	U – universal D – workshop EKO	63 – 110	57,1	POLYS P-4 1250 W	03967

The EKO version accessories include pair adapters starting from the diameter of 63 mm

» MP 110

clamping device with the universal clamp • welder POLYS P-4a 1250W • pair adapters with blue DT coating \varnothing 40, 50, 63, 75, 90, 110 mm • reduction inserts • stand for the welder • centring pin • special clamping inserts • sheet metal case for accessories • 5, 6, and 8 mm Allen keys

» MP 110 EKO

clamping device with the universal clamp • welder POLYS P-4a 1250W • pair adapters with blue DT coating \varnothing 63, 75, 90, 110 mm • reduction inserts • stand for the welder • centring pin • special clamping inserts • sheet metal case for accessories • 5, 6, and 8 mm Allen keys

• Included in the set •

Mobile Equipment for Socket Fusion Welding



MP 75

Mobile Fixture Unit for Pipes up to \varnothing 75 mm

- » any clamping jaw can be removed from the unit when working with oddly-shaped pipes
- » any welder can be used for working with the unit
- » the unit is intended for welding of diameters of 40 – 75 mm
- » easy control with the possibility of locking the unit in the desired welding position

TYPE	DIAMETERS (mm)	WEIGHT	SUPPLY NO.
MP 75	40,50,63,75	22 kg	01413

» MP 75 clamping unit

Included in the set



ST 160

Multi-Functional Equipment for Butt/Socket Fusion Welding

TYPE		ST 160
Welded diameters (mm)	socket fusion welding	40-110
	butt welding	40-160
Power demand (W)	welder	1200
	trimmer	630
Voltage (V)		230
Temperature control		electronic
Temperature range (°C)		180-280
Temperature indication		LED
Trimmer		electric
Weight (kg)		70
Supply No.		01657

» ST 160 clamping device • welder POLYS P-4a TW 1200 W • trimmer • reduction inserts \varnothing 40, 50, 63, 75, 90, 110, 125, 140 mm • pair adapters \varnothing 40, 50, 63, 75, 90, 110 mm • left clamp for fittings • butt welding plates \varnothing 170 mm • sheet metal case for accessories • stainless steel assembly bench • 4 and 8 mm Allen keys

Included in the set

More information on this equipment in the section "Butt Welding"

DT metr 400

Digital Contact Thermometer



- » essential for checking the temperature of heating surfaces of welding machines and adapters
- » integrated portable case provides a reliable protection of the contact probe and the charger cable
- » battery-based operation with a possibility of recharging with the aid of the built-in charger
- » range of measured temperatures 0 – 400°C
- » weight of 0,9 kg only

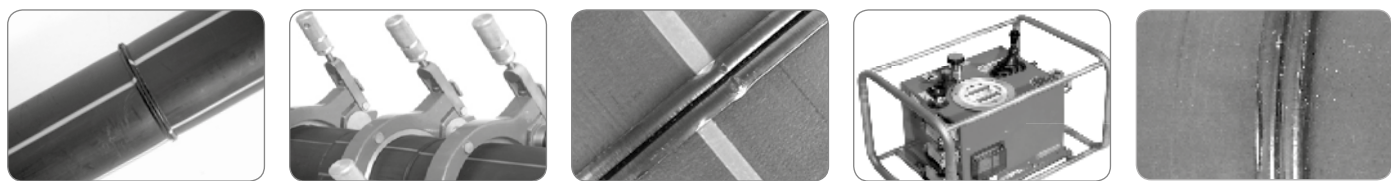
TYPE	SUPPLY NO.
DT metr 400	02000

» DT metr thermometer • contact probe • supply cable

Included in the set

Equipment for Butt Welding of Pipes

Ø 50 – 900 mm



The equipment for butt welding of pipes is intended for connection of pipes of diameters of 50 – 900 mm made from thermoplastic materials (mostly PE) which are used mainly for outdoor water and gas pipelines. We provide equipment with both hydraulic and mechanical pressures. In case of the hydraulic equipment the pressure is defined precisely and the equipment is used for welding of water and gas pipelines. The mechanical equipment is used for welding of water pipelines and sewer pipes.

Butt Welding Equipment with Hydraulic Pressure



STH 160, 250, 315, 500, 630, 900

Page 16

The hydraulic welding equipment allows welding of pipes of diameters of 50 – 900 mm and is produced in six designs (STH 160, 250, 315, 500, 630, and 900). The welding machines are equipped with a welding mirror and an electric trimmer. They allow to make precisely defined welds. The welding equipment can be combined with 3 different types of hydraulic units (TraceWeld® Plus, TraceWeld®, and Classic). The machines are intended for welding of pressure pipes for water and gas distribution.



Hydraulic unit

Page 17

The pressure source for STH equipment ensures an exact and easy control of the machine. The unit may be equipped with either a mechanical or a digital manometer. The digital manometer is equipped with the TraceWeld® system that guides the operator through the whole welding process. It may be programmed and equipped with a registration device permitting the processing of all parameters on a computer with the option of subsequent printing of protocols (TraceWeld® Plus version).

Multi-Functional Welding Equipment with Mechanical Pressure



ST 160

Page 21

A unique mechanical welding machine allowing both the socket fusion welding up to the diameter of 110 mm as well as the butt welding up to the diameter of 160 mm. The universal clamp of the machine provides an accurate positioning of any fitting during the socket fusion welding. Another advantage of this unit is the mobile stainless steel bench allowing comfortable handling of the welding machine. This equipment is used for welding of water and sewer pipelines.

Butt Welding Equipment with Mechanical Pressure

ST 110

Page 20



The mechanical equipment allows butt welding of pipes of diameters up to 110 mm with the angles of 0° - 30°. It is equipped with inserts that allow the welding of long pipe stretches and of special fittings. The machine is equipped with an electric welding mirror and a mechanical trimmer. The detachable stainless steel frame allows to reduce the size and the weight of the clamping part and enables welding in confined spaces (e.g. under the ceiling) this way. The equipment can be used for welding of water and sewer pipelines.

ST 200

Page 20



The mechanical equipment allows butt welding of pipes of diameters up to 200 mm with the angles of 0° - 30°. It is equipped with inserts that allow the welding of long pipe stretches. The machine is equipped with an electric welding mirror and an electric trimmer and it can be used for welding of water and sewer pipelines.

Workbench Welding Mirrors LUX



P-4a 110, 160, 250, 315

Page 19

The welding mirrors are intended for butt welding of pipes for pressure-less applications, e.g. for welding of sewer pipes. They can be also used for welding of air conditioning and ventilation elements made from thermoplastic materials. The surface of the heating element is covered with the special DT coating. The mirrors are supplied in sheet metal cases together with a foot stand and a clamp designed for fixing the mirror to a workbench.

Optional Accessories for Equipment STH



Flange Adapter

Page 19

Pipe Support Roller

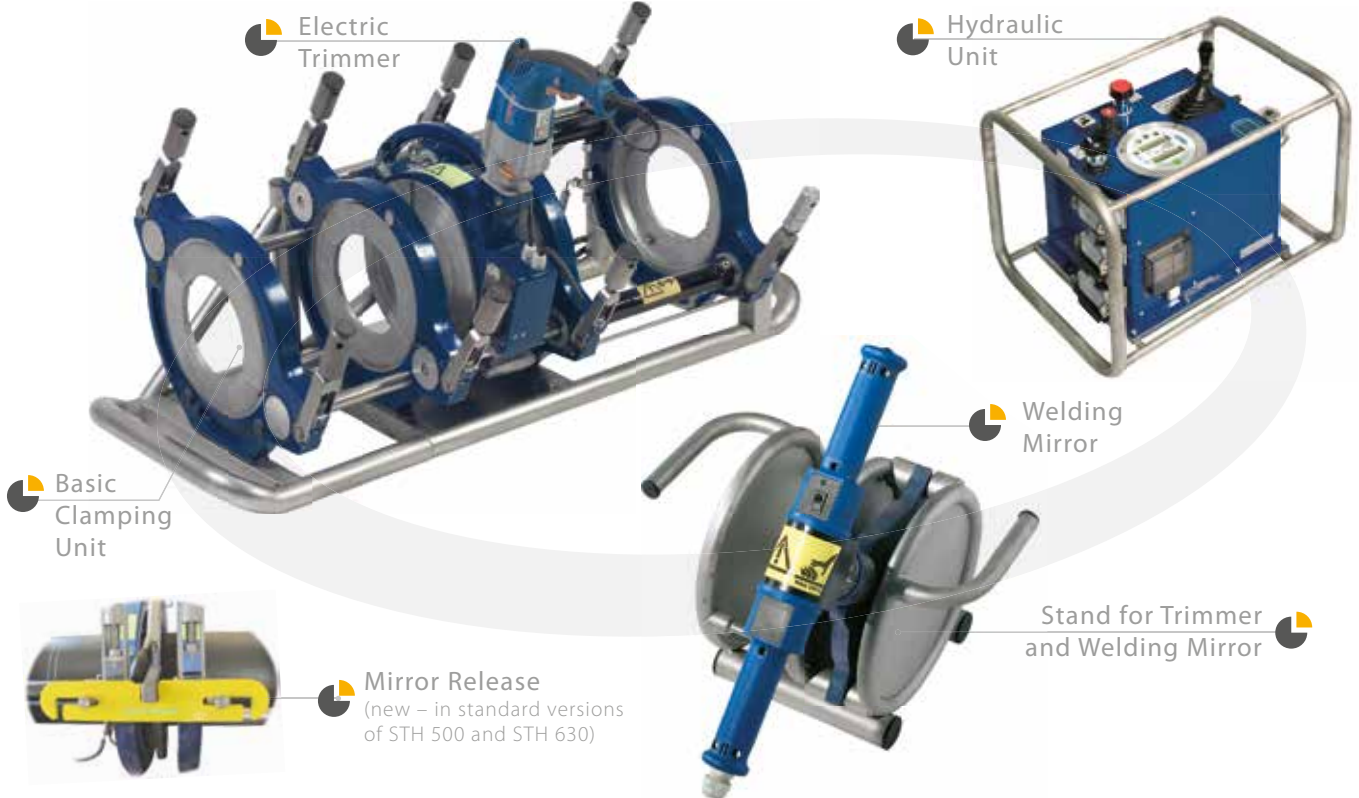
Page 19

Squeezer

Page 19

Welding Equipment with Hydraulic Pressure

STH 160, 250, 315, 500, 630, 900

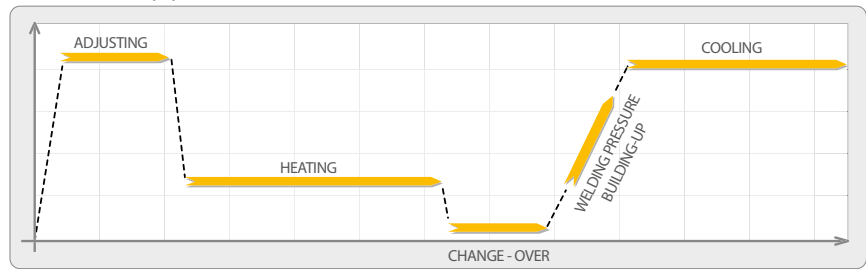


Description of the Equipment STH

The hydraulic welding machines STH are intended for butt welding of pipes made from thermoplastic materials of diameters of 50 – 900 mm which are used mainly for outdoor pressure pipes for water and gas distribution. Since the design of the equipment allows creating of an exactly defined pressure the welds made are precise and perfectly tough.

TraceWeld® System

To simplify the welding we have developed an original TraceWeld® system – “a welding process tracing”. It minimizes operator’s errors and speeds up the work with the welding machine as the operator does not have to follow the technological times, to remember the value of the motion pressure, and he does not need any timing device like watch or stop-watch. Before the beginning of welding the operator only enters the time of heating, pipe fixing and cooling. After the pre-determined time elapses the device always informs the operator by an audio signal of the next step to be made. In the pre-programmed version TraceWeld® Plus only the material, pipe diameter, and pipe wall thickness are to be entered.



Control Display of STH TraceWeld® Hydraulic Unit

Communication Software WeldManager

An original DYTRON software allows a communication with the following equipment:

- » hydraulic machines of the **STH TraceWeld® Plus** series
- » electrofusion welders **SVEL 3500 Plus**

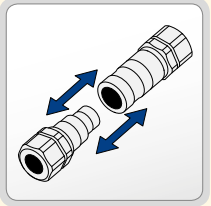
The advantage of this software is the data collecting into one central information storage using a sole program. This simplifies the evaluation and archiving of welds made by different equipment, such as e.g. STH and SVEL, on a single project site.

Protokol o svaru							Číslo protokolu	
Stavbyvedoucí Příkaz/ 0010	Svářecí Pancíř/ 0010	Svařovací zařízení STH-MANO/250/1000		Zrcadlo STH 250/00000269			0004_0333	
Zakázka Pardubice/ 78343	Datum 20.10.2004	Čas 13:47:05	Teplota okolí 17°C	Materiál PE 100	Dimenze 225,00	Síla stěny 20,50	SDR 10,8	Návržek 2,5
Požadované a měřené tlaky [bar]								
Požad. odpor	15,7							
	Počet	Min.	Max.					
Ohřev	3,1	0,1	0,1					
Očasná	31,5	24,2	31,7					
Společná	31,5	31,0	32,5					
Požadované a měřené časy								
	Průběh	Nečerný						
Ohřev [s]	205,0	205,0						
Přetlačení [s]	22,0	19,0						
Časová pauza	25,0	29,0						
Hodnocení								
Svar dobrý								

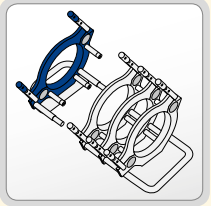
Advantages of STH Machines



Specially designed clamping jaws allow clamping and aligning of slightly oval pipes



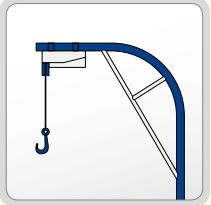
Quick-couplers for fast connection and disconnection of hydraulic unit and basic unit



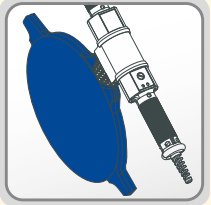
Removable fourth jaw of STH 160, 250, and 315 machines allows making of welds in hardly accessible areas



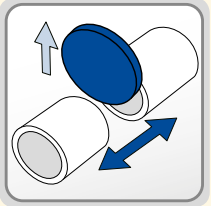
Each hydraulic unit is equipped with a **circuit breaker** for an increased operator's safety



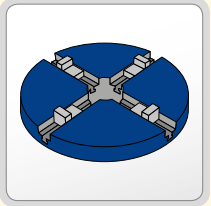
Hoist with electric drive for an easy handling of the mirror and trimmer is supplied with STH 500, 630, and 900



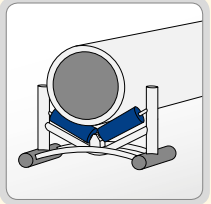
Welding mirror with a special coating provides a long life cycle and good welding properties



Mirror release simplifies the division of the welding mirror from the welded surfaces after the end of heating phase (at STH 500 and 630 only)



Flange adaptor is intended for fixing and welding of flanges (optional accessories)



Pipe support roller ensures a minimum motion pressure during the welding (optional accessories)

Hydraulic Units

STH TraceWeld® Plus



Programmable Unit with Data Registration of Completed Welds

Digital Manometer

GAS | WATER | SEWER

- » easy and intuitive control – the operator enters the material, pipe diameter and pipe wall thickness only before the welding – the device guides the operator through the entire welding process
- » possibility of switching to the TraceWeld® version (without data registration)
- » communication software WeldManager permits the communication with a PC
- » integrated welding tables containing all materials and pipe diameters
- » registration of completed welds – memory of 500 – 2000 welds
- » printing of protocols on a printer connected with a PC
- » easy adding of new materials to the data base, this can be done with a help of a computer

STH TraceWeld®



Unit with Partial Pre-Programming

Digital Manometer

WATER | SEWER

- » easy setting of technological times
- » recording of motion pressure – it is not necessary to remember this value or to make any calculation with it
- » the equipment guides the operator through the entire welding process
- » display of the course of the welding process by means of LEDs
- » acoustic signalling of the necessity to remove the welding mirror
- » pressure indication on the display permits a precise setting of its value
- » the mirror surface temperature can be checked on the display

STH Classic



Standard Equipment

Analogue Manometer

WATER | SEWER

- » pressure indication on the analogue manometer
- » temperature setting directly on the welding mirror
- » easy operation

Welding Equipment with Hydraulic Pressure

STH 160, 250, 315, 500, 630 a 900

Parameters of STH Machines

TYPE	STH 160	STH 250	STH 315	STH 500	STH 630	STH 900	
Diameters (mm)	50-160	75-250	90-315	200-500	315-630	500-900	
Hydraulic unit pressure (MPa)	9	9	9	9	9	9	
Hydraulic unit power demand (W)	370	370	370	370	370	370	
Trimmer power demand (W)	850	850	850	1 500	1 500	1 500	
Welding mirror power demand (W)	800	1 500	2 300	5 000	7 000	15 000	
Welding mirror temperature range (°C)	180 – 280	180 – 280	180 – 280	180 – 280	180 – 280	180 – 280	
Ambient temperature (°C)	from -5 to +40						
Voltage (V)	230	230	230	3 × 400	3 × 400	3 × 400	
Working stroke (mm)	210	210	220	370	370	370	
Diameter of piston rods (mm)	25	25	30	40	50	50	
Frame dimension (length x width x height) (mm)	900 × 440 × 450	1060 × 530 × 520	1130 × 600 × 600	1800 × 950 × 950	2000 × 1030 × 1030	2150 × 1500 × 1310	
Weight (hydr.unit, frame, mirror+trimmer) (kg)	25 / 29 / 18	25 / 44 / 40	25 / 66 / 40	25 / 194 / 109	25 / 289 / 130	25 / 430 / 180	
Inserts (diameter mm)	50 – 140	75 – 225	90 – 280	200 – 450	315 – 560	450 – 800	
Supply No. (according to the type of hydraulic unit)	STH Classic	02553	02555	02557	not available	not available	not available
	STH Traceweld*	04997	04998	05001	05003	05005	36168
	STH Traceweld* plus	21472	21473	21474	21475	21476	36169

STH 160 • STH 250 • STH 315

Hydraulic unit – basic unit – welding mirror – trimmer – stand for mirror and trimmer – pressure hoses

STH 500 • STH 630 • STH 900

Hydraulic unit – basic unit – welding mirror – trimmer – stand for mirror – stand for trimmer – electric hoist – pressure hoses – pipe release (STH 500, 630)

• Included in the set •

INSERTS for STH 160 - 900

Diameter	STH 160		STH 250		STH 315		STH 500		STH 630		STH 900	
	narrow	wide	narrow	wide	narrow	wide	narrow	wide	narrow	wide	narrow	wide
ø 50 mm	02759	04883										
ø 63 mm	02760	04884										
ø 75 mm	02761	04885	02724	04805								
ø 90 mm	02762	04886	02725	04806								
ø 110 mm	02763	04887	02726	04807	02998	04891						
ø 125 mm	02764	04888	02727	04808	02999	04892						
ø 140 mm	02765	04889	02728	04809	03000	04894						
ø 160 mm			02729	04810	03001	04895						
ø 180 mm			02730	04811	03002	04896	03204	04901				
ø 200 mm			02731	04812	03003	04897						
ø 225 mm			02732	04813	03004	04898	03205	04902				
ø 250 mm					03005	04899	03206	04903				
ø 280 mm					03006	04900	03207	04904				
ø 315 mm							03208	04905				
ø 355 mm							03209	04906	03215	04910		
ø 400 mm							03210	04907	03216	04911		
ø 450 mm							03211	04908	03217	04912		
ø 500 mm									03218	04913		
ø 560 mm									03219	04914	36159	36164
ø 630 mm											36160	36165
ø 710 mm											36161	36166
ø 800 mm											36162	36167

The inserts are not a part of the set – they must be ordered separately.
 The narrow inserts are supplied as a standard.
 The supply number indicates one semi-circle (a complete set of one diameter consists of 8 semi-circles)

Optional Accessories for Welding Equipment STH

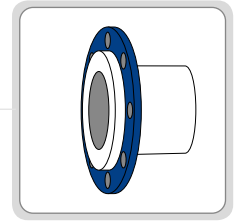
* Special optional accessories – they are not a standard part of delivery.



Flange Adapter

- » designed for clamping and welding of flanges

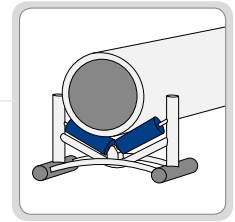
FOR TYPE	SUPPLY NO.
STH 160	36154
STH 250	36155
STH 315	36156



Pipe Support Roller

- » ensures a minimum motion pressure during welding
- » provides a support for the welded pipes

FOR DIAMETER	SUPPLY NO.
up to 315 mm	02561
up to 630 mm	36582
up to 900 mm	36583



Squeezer

- » serves for closing pipes filled with water/gas
- » supplied on request only

FOR DIAMETER	SUPPLY NO.
up to 63 mm	28876



POLYS P-4a LUX

Workbench Welding Mirrors ø 110, 160, 250, 315 mm

- » the mirrors are used for welding of thin-wall pipes made from thermo-plastic materials intended specially for air conditioning, sewers and pressure-less water distribution
- » the welding mirrors are covered with a special anti-adhesive coating featuring an extra-long life cycle and a minimum sticking of the welded material
- » the electronic control provides an accurate temperature setting in the range from 180°C to 280°C
- » the workbench clamp allows an easy handling of the welded pipes
- » the transport case provides a protection of the anti-adhesive coating and ensures a comfortable handling of the mirror
- » the foot stand allows a fixing of the mirror during the welding in the field or in spaces without furniture

WORKBENCH WELDING MIRRORS P-4a	110	160	250	315
Temperature control	potentiometer	potentiometer	potentiometer	potentiometer
Work mode indication	LED	LED	LED	LED
Temperature setting accuracy (°C)	10	10	10	10
Temperature range (°C)	180 – 280	180 – 280	180 – 280	180 – 280
Power demand (W)	1 200	800	1 500	2 300
Outer diameter of welding mirror (mm)	130	200	300	380
Maximum welding diameter (mm)	110	160	250	315
Voltage (V)	230	230	230	230
Weight (kg)	2,1	3,0	5,5	8,3
Supply No.	28878	28879	28880	28881

» POLYS P-4a LUX

welding mirror • sheet metal case • workbench clamp • foot stand

• Included in the set •

Butt Welding Equipment with Mechanical Pressure

ST 110

Mechanical Equipment for Butt Welding up to \varnothing 110 mm



TYPE	ST 110	ST 110 EKO
Diameter (mm)	20 -110	40 -110
Power demand (W)	1 200	1 200
Voltage (V)	230	230
Temperature control	electronic	electronic
Temperature range (°C)	180 – 280	180 – 280
Temperature indication	LED	LED
Trimmer	mechanical	mechanical
Weight (kg)	37	35
Supply No.	01655	03971

- » the welding equipment creates a defined pressure that can be monitored on a measuring scale easily
- » wide inserts allow a firm and reliable clamping of long pipe sections
- » even special fittings without straight parts (e.g. Geberit system) can be reliably clamped using the narrow inserts
- » the unit is equipped with a mechanical trimmer

» **ST 110** clamping device • welder POLYS P-4a 1200 W • mechanical trimmer • stand for trimmer and welder • reduction inserts \varnothing 20, 25, 32, 40, 50, 63, 75, 90 mm • right wide clamp (sliding part) • left wide clamp (fixed part) • narrow clamps • 4, 5, and 6 mm Allen keys

» **ST 110 EKO** clamping device • welder POLYS P-4a 1200 W • mechanical trimmer • stand for trimmer and welder • reduction inserts \varnothing 40, 50, 63, 75, 90 mm • right wide clamp (sliding part) • left wide clamp (fixed part) • 4, 5 and 6 mm Allen keys

• Included in the set •

ST 200

Mechanical Equipment for Butt Welding up to \varnothing 200 mm



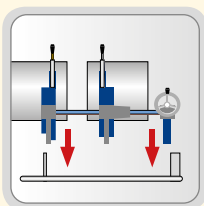
TYPE	ST 200
Diameter (mm)	90 – 200
Power demand (W)	1 500
Voltage (V)	230
Temperature control	electronic
Temperature range (°C)	180 – 280
Temperature indication	LED
Trimmer	electric
Weight (kg)	52
Supply No.	04915

- » adjusting screws for mutual compensation of both the pipes to be welded enable their exact setting even if they are slightly deformed
- » the machine is equipped with an electric trimmer
- » the welding equipment creates a defined pressure that can be monitored on a measuring scale easily
- » wide inserts allow a firm and reliable clamping of long pipe sections

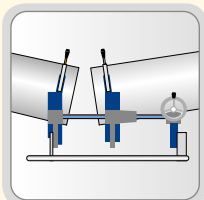
» **ST 200** clamping device • welder POLYS P-4a 1500 W • electrical trimmer • stand for trimmer and welder • reduction inserts \varnothing 90, 110, 125, 140, 160, 180 mm • 4, 5 and 6 mm Allen keys

• Included in the set •

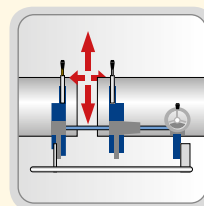
Advantages of Mechanical Welding Machines ST 110 and ST 200



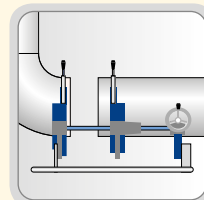
The detachable clamping frame of ST 110 allows a reduction of weight of the whole machine which is designed also for welding in confined space (e.g. at tank walls)



The angle welding in the range of 0°- 30° allows formation of angles without a need for fittings



Adjusting screws for mutual movement provide an accurate and exact alignment even for thin-walled eccentrically clamped pipes



Fittings can be welded directly in the bend by the help of the narrow inserts

Multi-Functional Equipment for Socket Fusion/Butt Welding

ST 160

Combined Equipment for Butt and Socket Fusion Welding



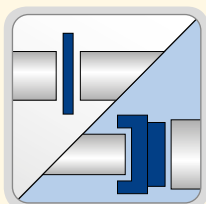
TYPE		ST 160
Welded diameter (mm)	socket fusion welding	40 – 110
	butt welding	40 – 160
Power demand (W)	welder	1 200
	trimmer	630
Voltage (V)		230
Temperature control		electronic
Temperature range (°C)		180 – 280
Temperature indication		LED
Trimmer		electric
Weight (kg)		70
Supply No.		01657

» **ST 160** clamping device • welder POLYS P-4a TW 1200 W • electric trimmer • reduction inserts \varnothing 40, 50, 63, 75, 90, 110, 125, 140 mm • pair adapters \varnothing 40, 50, 63, 75, 90, 110 mm • left clamp for fittings • butt welding plates \varnothing 170 mm • sheet metal case for accessories • stainless steel assembly bench • 4 and 8 mm Allen keys

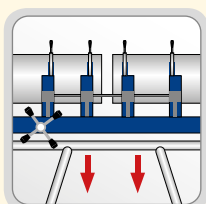
• Included in the set •

- » a universal equipment for both socket fusion and butt weldings
- » the welder P-4a TraceWeld 1200 W delivered as a standard part of the set enables an accurate temperature setting
- » the electric trimmer provides an accurate processing of pipe faces
- » the stainless steel mobile bench allows a comfortable handling of the equipment
- » range of butt welding: \varnothing 40 – 160 mm
- » range of socket welding: \varnothing 40 – 110 mm
- » the universal clamp provides an accurate clamping of any fittings for socket fusion welding
- » the equipment contains a complete set of reduction inserts, welding adapters and other accessories placed in a sheet metal case

Advantages of the Multi-Functional Welding machine ST 160



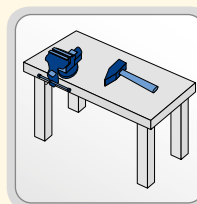
The machine is used for **butt welding** in the range of diameters of **40 – 160 mm** and for **socket fusion welding** in the range of diameters of **40 – 110 mm**



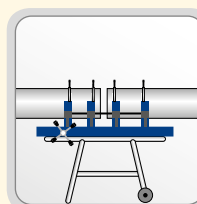
If necessary, the equipment can be easily **removed from the mobile bench** and made lighter in this manner



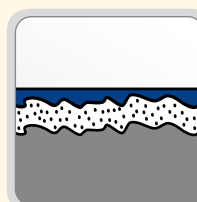
The welder **P-4a TW 1200 W delivered as a standard part** of the set simplifies the operation and increases the quality of the weld thanks to its audio signalling



The machine is designed for **welding in a workshop** and if the stainless steel bench is removed the operation on a workbench is possible

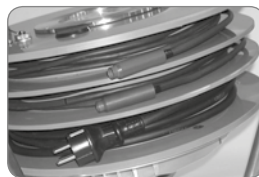
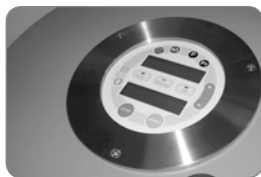


Even very long pipes can be firmly clamped thanks to four clamping jaws



The welding mirror is covered with a **special coating providing a long life cycle** and a minimum sticking of the welded material

Electrofusion Welding Machines



During the development of the electrofusion welding machines SVEL 3500 and SVEL 950 our priority was not only an original design but above all an easy and safe operation. A safe storage and fixing of cables are solved in a specific way. The entire welding process is fully automatic and the equipment is blocked if no electro-fitting is connected. The electrofusion welding machines are intended as an alternative in the welding of pipelines made from thermoplastic materials.

The SVEL 3500 line is used for welding of pipes (mostly from PE) e.g. for outdoor water and gas pipelines. The welder SVEL 950 is intended as a complement of the socket fusion welding for making, for example, the last weld in a hardly accessible place or for repairs of polypropylene pipelines.

Electrofusion Welding Machines



SVEL 3500 Plus a SVEL 3500

Pages 24 – 25

Universal welding machines intended for welding with electro-fittings from PE marked with a bar code. A contactless reading of the code by means of a scanner represents a substantial advantage of the machine. An original design provides an easy handling of the machine and a safe storage of the cables. The welding machine is intended for welding of water or gas pipelines.

In addition, SVEL 3500 Plus has a built-in list of electro-fittings and a possibility to print welding protocols after a connection with a PC. The communication with the PC is ensured by the help of our WeldManager software supplied with the machine.

Electrofusion Welding Machine



SVEL 950

Page 23

This welding machine is intended for welding with selected electro-fittings without a bar code. The supply and welding cables are safely stored in an integrated transport case. The most frequent application of the machine is welding with electro-fittings made from polypropylene which are used for repairs of indoor water piping or for making connections in hardly accessible places.

Clamping devices for plastic pipes



UP 63 and UP 110

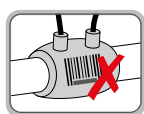
Page 23

The clamping devices UP series are designed for fixing of plastic pipes during the welding with the help of electro-fittings. They provide a perfect alignment and a firm clamping of the welded parts.

Welding of Electro-Fittings without a Bar Code

SVEL 950

A simple machine for selected electro-fittings



Electro-fittings without a bar code

PARAMETER		VALUE
Voltage (V)		230
Welded diameters (mm)		20 – 315
Power demand (W)		950
Operational temperature range (°C)		0 – 40
Dimensions (mm)	width	277
	height	245
	length	75
Weight (kg)		1,47
Supply No.		01989

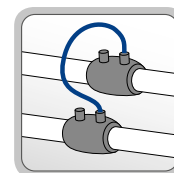
» SVEL 950 welder • welding cables • reduction end pieces
 • Included in the set •

CONNECTING CABLES	SUPPLY NO.
Connecting cable 1 m	36554
Connecting cable 2 m	36555

Advantages of SVEL 950

- » an easy control
- » compact dimensions and a sturdy transport case make the machine highly mobile
- » a low weight of 1,47 kg
- » suitable for welding of electro-fittings Geberit, Rollma-plast, Akatherm, Wavin, etc.

- » connecting cable enables a joining of more electro-fittings at a time



Connecting cable

- » a practical storing of cables inside the body of the machine provides an easy handling during the transportation and welding



Advantages of UP 63 and UP 110

- » an easy handling
- » a low weight and a high stiffness
- » a high accuracy of the fixing
- » special removable jaws enable fixing of pipes of any current diameter
- » accessories are supplied in a sheet metal case

UP 63 and UP 110

Clamping devices for plastic pipes

UP 63 \varnothing 25 – 63 mm

UP 110 \varnothing 40 – 110 mm

- » clamping devices UP are designed for fixing of plastic pipes during the welding by means of electro-fittings
- » the fixtures ensure a perfect alignment and a firm clamping of the welded plastic parts

	UP 63	UP 110
Diameters of welded pipes (mm)	25 - 63	40 - 110
Inserts (mm)	25, 32, 40, 50	40, 50, 63, 75, 90
Supply No.	01660	01659

» UP 63 and UP 110 clamping device • sheet metal case with reduction inserts (according to the type of the device)
 • Included in the set •

Welding of Electro-Fittings with a Bar Code

SVEL 3500 Series

A welding machine for electro-fittings is an equipment designed for welding of plastic pipes by an exactly defined technological process.

The welding unit is located in a plastic drum on which the supply cable and cables with end pieces for connecting with the welded electro-fittings are wound.

A panel with buttons and a display serve for the control of the machine.

In case of SVEL 3500 Plus information on the welds made can be registered, saved in a computer and printed any time later.

A scanner is used for entering the type of electro-fitting.

The electro-fitting welder is used primarily for welding of electro-fittings with a bar code intended for installation of gas, water, air condition or sewer pipelines.

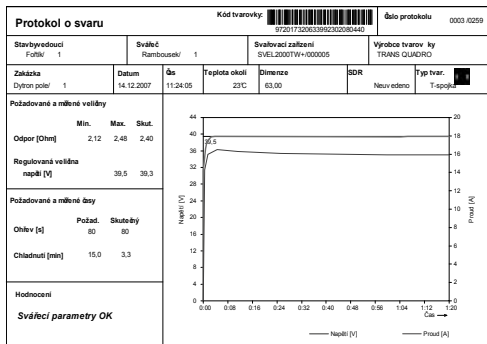
Communication Software WeldManager

The advantage of this software is a centralization of protocols made by all the welding equipment of DYTRON EUROPE s.r.o. by means of a single programme only. The evaluation and archiving of welds made by different equipment, e.g. STH and SVEL, in the frame of one project site are substantially simplified.

The original software of company DYTRON EUROPE enables a communication with:

- » hydraulic welding equipment **STH TraceWeld® Plus**
- » electrofusion welders **SVEL 3500 Plus**

Weld protocol view



- » **two working positions** a special frame in the "cradle" shape allows to place the welder in both horizontal and vertical positions



- » **an easy handling** the machine can be carried by one or two persons



Advantages of SVEL 3500 and SVEL 3500 Plus



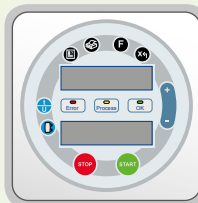
Push Button START
automatic process by pressing just one button



Push Button STOP
immediate interruption of the welding cycle



Sturdy scanner for reading the bar codes



Well-arranged display informing the operator about the next step to be made



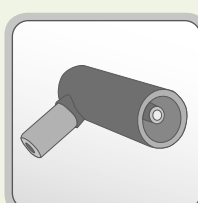
Display of the **"current status"** of the welding cycle using LEDs



Automatic identification of the attached fitting



Acoustic signalling simplifies the welding process



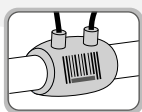
Reduction end pieces ø 4,0 mm and ø 4,7 mm

Welding of Electro-Fittings with a Bar Code

SVEL 3500 Plus

An automatic welder for fittings with a bar code

 Creation and printing of protocols
Memory for up to 4000 welds



For electro-fittings with a bar code

PARAMETER		VALUE
Voltage (V)		230
Power demand (W)		3 500
Welded diameters (mm)		20 – 315
Protection level		IP 54
Operational temperature range (°C)		-10 to +40
Length of supply cable (m)		3
Length of connecting cables (m)		3
Dimensions (mm)	width	370
	height	360
	length	560
Weight (kg)		35
Supply No.		04880

» SVEL 3500 Plus

welder • scanner • converter USB-RS232 • connecting cable for PC • installation CD with WeldManager software • welding cables • reduction end pieces

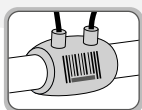
• Included in the set •

Advantages of SVEL 3500 Plus

- » an easy and intuitive control where the machine guides the operator through the entire welding cycle
- » Integrated software WeldManager enabling the storing, viewing and printing of protocols
- » an easy addition of the project site, operator, site manager in the data base (directly in the machine or with the aid of a computer)
- » reading of the bar code by a scanner
- » a memory for up to 4000 welds
- » a display of the current condition of the welding cycle by means of LEDs
- » a display of the welding time and the voltage or the current on the display of the machine
- » printing of protocols on a printer connected to a PC
- » an automatic identification of the connected electro-fitting
- » a possibility of a manual setting of data about the electro-fitting

SVEL 3500

Welder for electro-fittings with a bar code



For electro-fittings with a bar code

PARAMETER		VALUE
Voltage (V)		230
Power demand (W)		3 500
Welded diameters (mm)		20 – 315
Protection level		IP 54
Operational temperature range (°C)		-10 to +40
Length of supply cable (m)		3
Length of connecting cables (m)		3
Dimensions (mm)	width	370
	height	360
	length	560
Weight (kg)		35
Supply No.		04879

» SVEL 3500

welder • welding cables • reduction end pieces

• Included in the set •

Advantages of SVEL 3500

- » a practical storage of cables allows an easy handling
- » a display of the welding time and voltage on the display of the machine
- » a possibility of a manual setting of the welding voltage and the welding time
- » a display of the current condition of the welding cycle by means of LEDs
- » reading of the bar code by a scanner
- » an automatic identification of the connected electro-fitting

Welding of Plates and Foils



We offer the proven universal extruder ES 2 for connecting of plates and foils. The machine can weld all the plates and foils whose manufacturers recommend the welding as a method of connection. The range of their thicknesses is quite broad among others thanks to the different shapes of boots we can offer. In case of specific requirements of the customers we supply a semi-finished boot intended for a machining by the customer or we can adjust the boot by ourselves on basis of a supplied technical documentation.

Extruder



ES 2

Page 27

It is a universal machine intended for welding of a wide thickness range of plates and foils made from thermoplastic materials. Its advantage is a high welding output, a separated accurate setting of the heating chamber temperature and the welded material pre-heating temperature and especially a rotary welding boot adjustable in the range of 0 – 360°.

Accessories for Extruder ES 2



Boots for ES 2

Page 28



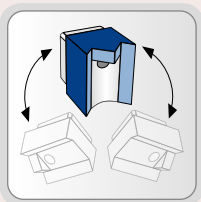
PARAMETER	VALUE
To be used for	plates and foils
Voltage (V)	230
Total power demand (W)	3 600
Welding output (kg/hour)	1,3 – 2,2
Welding wire (mm)	round, ø 3 – 4
Welded material	PE, PP
Air supply volume (l/min)	350
Melting chamber temp. (°C)	160 – 290
Pre-heating temp. range (°C)	200 – 300
Ambient temperature range (°C)	5 – 65
Temperature units displayed	°C, °F
Weight (kg)	6,5
Supply No.	03804

» ES 2 extruder - basic boot for angle welds of plates of thickness up to 8 mm
 Included in the set

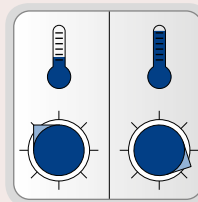


- » inner weld of perpendicular plates of thicknesses of 5 – 20 mm
- » outer weld of perpendicular plates of thickness of 10 mm
- » "V" shaped weld of parallel plates of thicknesses of 5 – 20 mm
- » weld of overlapped foils of thicknesses of 1,5 – 3,0 mm

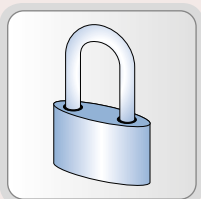
Advantages of Extruder ES 2



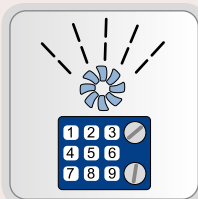
A special design of the welding boot enables its rotation of 360° and therefore allows a welding in hardly accessible places



An independent and accurate temperature control of the melting chamber and the pre-heating is a prerequisite to perfect welds



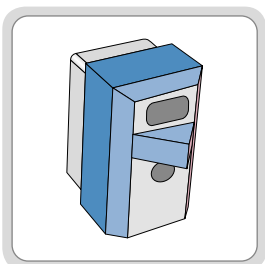
An electronic protection of the driving mechanism blocks a start-up of the extruder until the material has reached the required temperature



A compact construction integrates the control electronics with the pre-heating

Welding of Plates and Foils

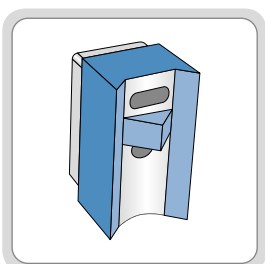
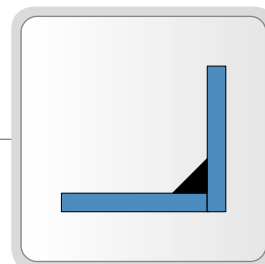
Boots for ES 2



Inner weld of perpendicular plates

This kind of weld is suitable to connect a perpendicular plate to a surface. One of four different boots can be chosen depending on the thickness of the plates being welded.

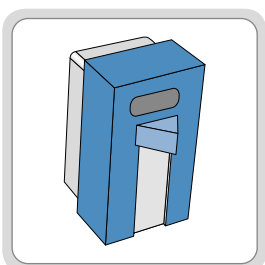
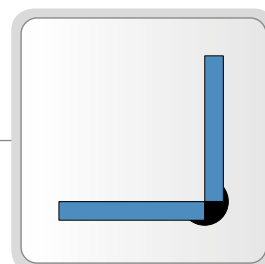
SUPPLY NO.	
Boot for thickness up to 5 mm	05205
Boot for thickness up to 10 mm	05206
Boot for thickness up to 15 mm	36580
Boot for thickness up to 20 mm	36581



Outer weld of perpendicular plates

In case the perpendicular plates cannot be welded from the inner side it is necessary to use the boot for outer welding. The plates are to be placed in such a way that there is a space on the connection's outer side for the material to be supplied.

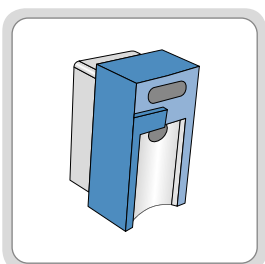
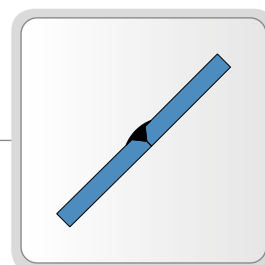
SUPPLY NO.	
Boot for thickness up to 10 mm	05207



Weld of uniplanar plates

Uniplanar plastic plates can be welded easily. The melted material is supplied using one of four special boots into the space created by a special processing of the adjacent plates according to the attached picture.

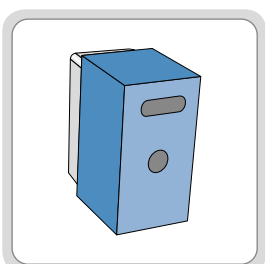
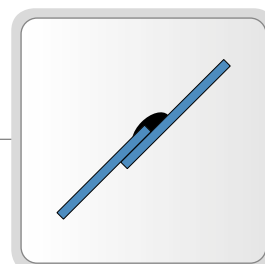
SUPPLY NO.	
Boot for thickness up to 5 mm	05208
Boot for thickness up to 10 mm	05209
Boot for thickness up to 15 mm	05210
Boot for thickness up to 20 mm	05211



Weld of overlapped foils

Two types of welding boots are supplied for this sort of welds.

SUPPLY NO.	
Boot for thickness up to 1,5 mm	05212
Boot for thickness up to 3 mm	05213



Semi-finished shape

It is a semi-finished boot where the customer can make the final design exactly according to his requirements.

SUPPLY NO.	
Semi-finished boot	05214



We wish to offer you also the products manufactured by our sister company BohemiaLED s.r.o. which is specialized in development, production, assembly and technical assistance in the field of LED lighting.

The luminaires manufactured by BohemiaLED are designed for various types of application.

They are suitable mainly for public premises – schools, offices, hospitals, etc. Thanks to a broad range of versions differing not only in output but also in varied design they benefit any interiors including households. The user appreciates the quality and reliability of the luminaires designed and tested for the most demanding conditions regardless of the manner and place of the use.

You will appreciate mainly the following features of the BohemiaLED luminaires:

- A high quality of the luminaires and the warranty period up to 5 years
- A patented design of replaceable LED modules decreasing substantially maintenance costs
- Use of noble materials – stainless steel, anodized aluminium, solid timber and others
- Project counselling for complete illumination networks
- An assistance in recycling of old luminaires
- A possibility of a collaboration in the frame of specific projects

All the luminaires made by BohemiaLED are manufactured in the Czech Republic.

BohemiaLED s.r.o.

**Toužimská 1023/24d
197 00 Praha 9 - Kbely
CZECH REPUBLIC**

ID No. : **256 35 549**
VAT No. : **CZ256 35 549**

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Telephones:
+420 266 190 031

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info@bohemialed.cz

Web-site:
www.bohemialed.cz



Offer of Free Production Capacity

Our company DYTRON EUROPE s.r.o. keeps at its disposal a wide range of modern production technologies serving primarily for the manufacture of products shown in this catalogue. As the demand on the majority of our products is not uniform in the course of the year we are able to offer a part of our production capacities to possible applicants.

It is not a problem to manufacture your products on basis of a documentation supplied but naturally we are able to prepare the production documentation by ourselves on your detailed instructions. We can not only supply complete products in the below mentioned fields but we are able to repair or modify different parts and components according to the wishes of the customer.

We can offer the below mentioned technologies:

- Manufacture of aluminium castings
(the following technologies are available – sand casting, mould casting, pressure casting)
- Highly precise machining of metal parts on CNC machines
- PTFE coating of metal parts and products
- Spray coating of powder paints on metal parts and products
- Assembly of printed circuits
- Assembly of small electric and electronic parts



Information on the Company

DYTRON EUROPE s.r.o. was established in 1992 (under the name Dytron s.r.o) for purpose of the development, production, sale and technical support of welding equipment for plastic materials. In the course of the subsequent years the company became one of the most important European manufacturers of such an equipment.

Our first product, which laid the ground for the present extensive range of welding equipment, was a hand socket welder for PP pipes. Its unique design with a rod-shaped heating element became gradually extremely popular not only on the domestic market, where it represents a standard in this product category, but it acquired a high popularity also on many foreign markets.

The production range of the company has been expanded continually by adding other categories. In addition to a wide variety of hand welders the equipment for butt welding of pipes was launched – at present 6 basic models are supplied whereas the maximum diameter of welded pipes can reach 900 mm. In further phases the range of products manufactured by our company included equipment for welding of electro-fittings and also hand extruders intended for welding of plastic plates and foils.

A great attention is paid to the quality and technical level of our products and to their further constant improvement as well as to assurance of a reliable customer service and spare part deliveries for all products supplied.

A creativity devoted to the improvement of the existing products and to the development of the new ones plays an important role in our efforts to satisfy the needs and requirements of our customers. As an example we can mention the use of the rod-shaped heating element and of the corresponding jaw adapters at hand welder which were patented at the start-up of their production. The system of acoustic signalling TraceWeld belongs to further original ideas of our company. Nowadays the majority of our hand welders supplied to foreign markets is equipped with this system. A similar system was created also for one of model lines of our hydraulic equipment for butt welding of pipes where a data recording on individual welds is integrated directly into the hydraulic unit.

A constant care of the quality and a regular introduction of technical novelties contribute to an increasing popularity of the brand DYTRON not only on the domestic market but also on our export markets in Europe as well as overseas.

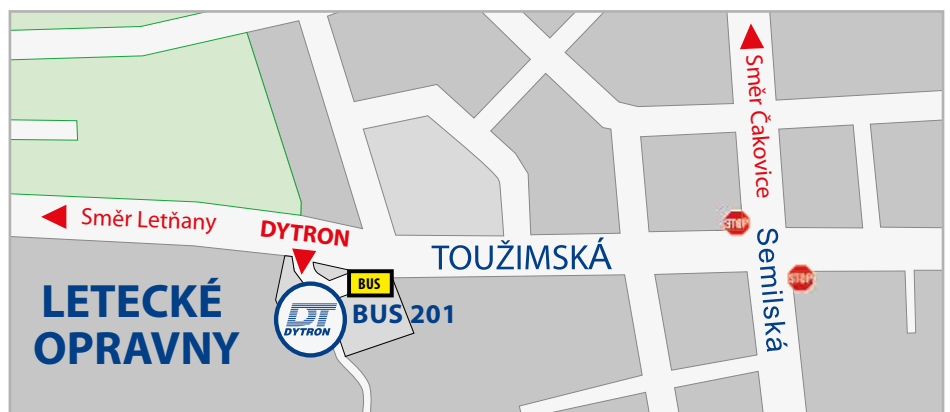
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